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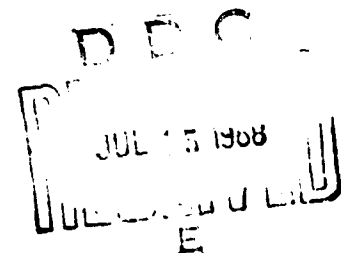
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USE OF FLUORESCENT ANTIBODY METHOD FOR THE RAPID
DIAGNOSIS OF INFLUENZA DURING AN EPIDEMIC

Ceskoslovenska epidemiologie,
mikrobiologie, imunologie
(Czechoslovak epidemiology,
microbiology, immunology), 1963,
Vol. 12, No. 3, pages 129-139

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CONCLUSION

1. We combined rabbit specific immune gamma-globulins against influenza virus A₂, A₁, B, B₁ and C with fluorescein isothiocyanate (FITC). Such fluorescent antibodies were used for a rapid diagnostic test of nasal smears (concha inferior) from people suffering from A₂ influenza or living together with patients at the same place during the influenza epidemic caused in the Czechoslovak Socialist Republic by the A₂ type, in the first months of 1962.

2. In five out of eleven persons examined daily, specific immunofluorescence of the cylinder epithelia was demonstrated in the first three days. Influenza was serologically corroborated in nine persons. Further two did not produce specific antibodies although the cytological analysis of nasal mucosal cells as well as mild clinical signs showed a definite infection.

3. As a contribution to quick influenza diagnosis, the demonstration of influenza antigen can be also used with the aid of fluorescent antibodies in amnion and amniotic fluid cells, if the chicken embryo was inoculated in the first passage with influenza-virus containing material. With the aid of fluorescent antibodies, viral antigens were demonstrated although the chicken or turkey cells were agglutinated by the amniotic fluid only indefinitely or at a low titre (1:2).

4. In influenza patients the cytological analysis of smears from the inferior concha shows changes on the cells (degeneration, cytopathic effect, inclusion formation, occurrence of leukocytes). These changes can have an auxiliary diagnostic value during an influenza epidemic which has been already established as such.

5. The use of fluorescent antibody method in the rapid diagnosis of influenza on smears of the nasal mucosa, prepared during the first three days of sickness, can be recommended as a suitable method. Therefore, the training of laboratory workers in this direction is promising for the epidemiological and virological diagnosis.